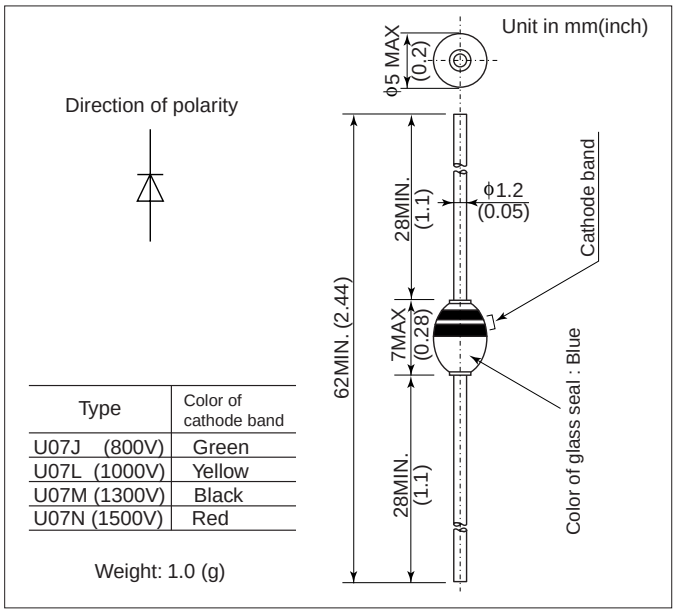
U07

FEATURES

- For high speed switching.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



Type	Color of cathode band
U07J (800V)	Green
U07L (1000V)	Yellow
U07M (1300V)	Black
U07N (1500V)	Red

Weight: 1.0 (g)

ABSOLUTE MAXIMUM RATINGS

Items	Type		U07J	U07L	U07M	U07N
Repetitive Peak Reverse Voltage	V_{RRM}	V	800	1000	1300	1500
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	1000	1300	1600	1800
Average Forward Current	$I_{F(AV)}$	A	1.0 (Single-phase half sine wave 180° conduction, TL = 60°C, Lead length = 10mm)			
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	50(Without PIV, 10ms conduction, Tj = 140°C start)			
I^2t Limit Value	I^2t	A^2s	10(Time = 2 ~ 10ms, I = RMS value)			
Operating Junction Temperature	T_j	°C	-65 ~ +140			
Storage Temperature	T_{stg}	°C	-65 ~ +200			

Notes (1) Lead mounting : Lead temperature 300°C max. to 3.2mm from body for 5sec. max..
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 3kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	2.0	10	Rated V_{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	2.5	I_{FM}=1.0 Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	trr	μs	—	—	0.4	I_F=2mA, V_R=-15V
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	60	Lead length = 10 mm
	$R_{th(j-l)}$				30	

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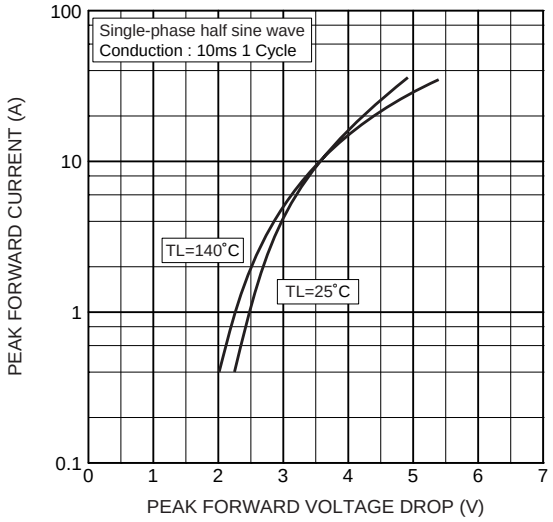
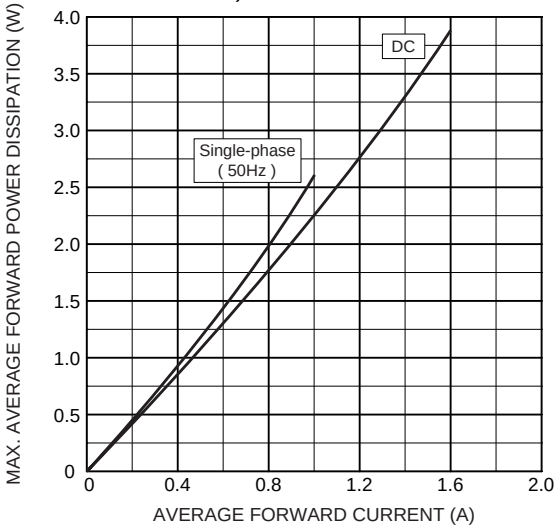
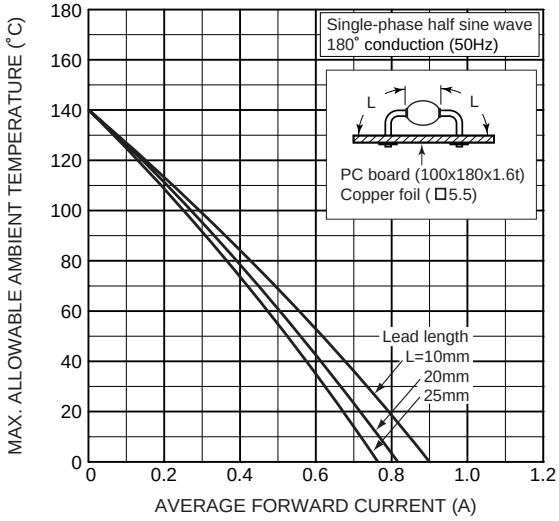
Forward characteristics



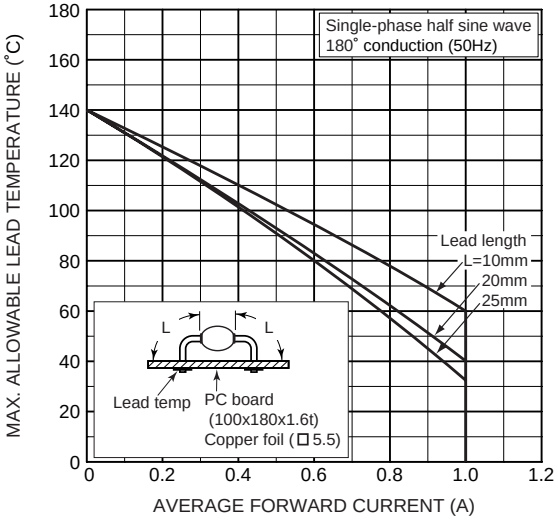
Max. average forward power dissipation
(Resistive or inductive load)



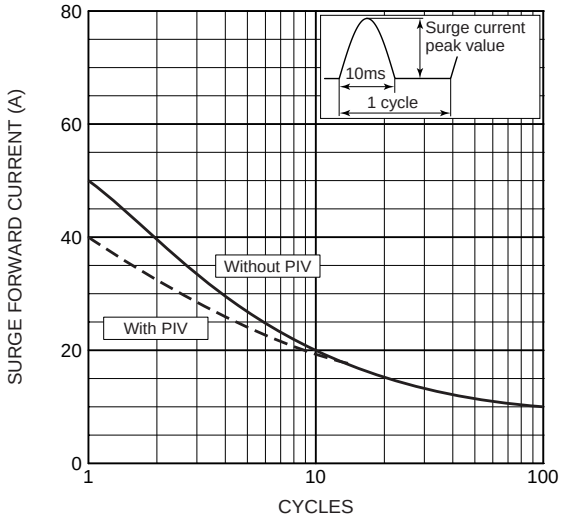
Max. allowable ambient temperature
(Resistive or inductive load)



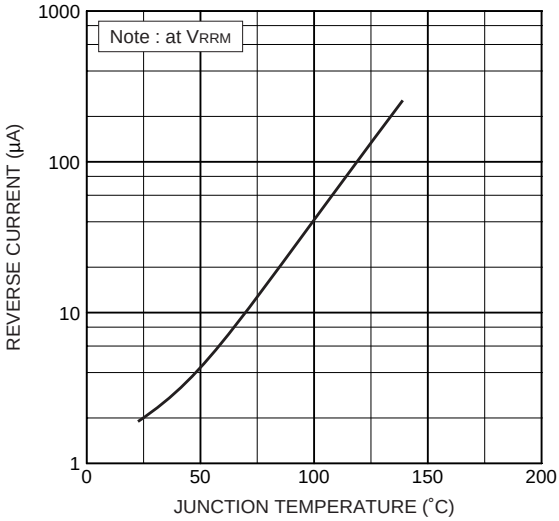
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Typ. reverse current vs. junction temperature



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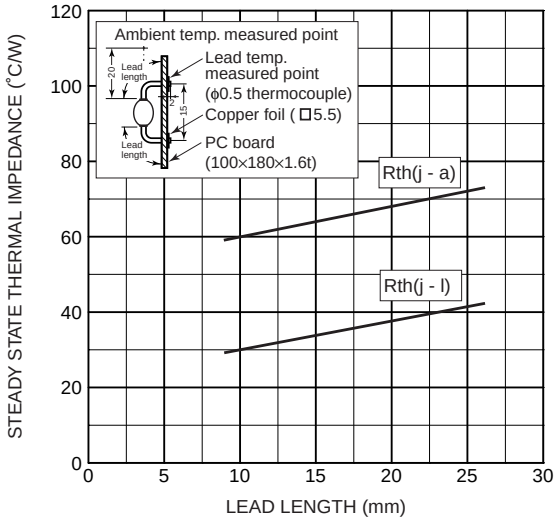
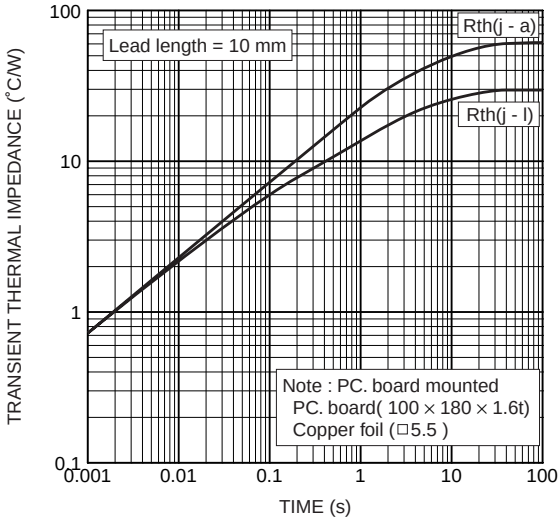
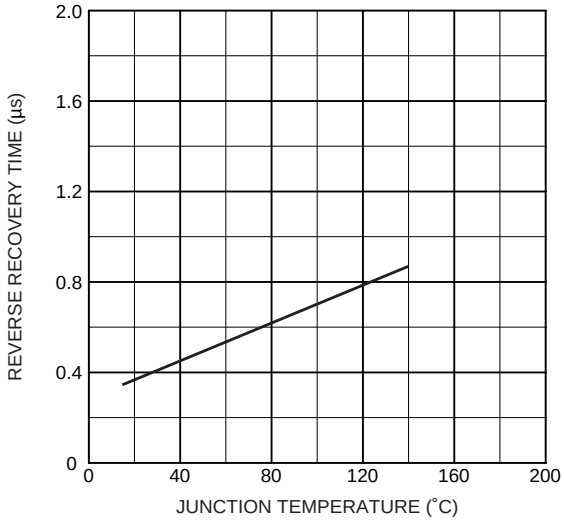
Steady state thermal impedance



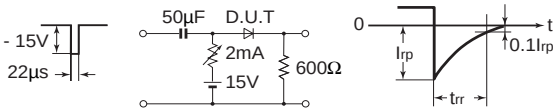
Transient thermal impedance



Typ. reverse recovery time vs. junction temperature



Reverse recovery time(trr) test circuit



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